Methods of communication for expandable telecommunication system

Patent number: JP9505190 (T)
Publication date: 1997-05-20
Inventor(s):
Applicant(s):
Classification:
- international: *H04M3/00; H04L12/43; H04L12/64; H04Q3/00; H04Q11/04; H04L12/56;* **H04M3/00; H04L12/427; H04L12/64; H04Q3/00; H04Q11/04;** H04L12/56; (IPC1-7): H04L12/56; H04L12/42; H04L12/66
- european: H04L12/43; H04L12/64B; H04Q3/00D1; H04Q11/04S2
Application number: JP19950523711T 19950306
Priority number(s): WO1995US03568 19950306; US19940207931 19940308

Also published as:
JP3302367 (B2)
US5737320 (A)
US5864551 (A)
US5544163 (A)
WO9524788 (A2)
more >>

Abstract not available for JP 9505190 (T)
Abstract of correspondent: **US 5737320 (A)**

A means for transferring circuit switched data (CSD) and packet switched data (PSD) in an open, high speed, high bandwidth, expandable telecommunications system having a plurality of switching and non-switching nodes. The network may carry any type of information present in the system including voice, data, video, multimedia, control, configuration and maintenance, and the bandwidth of the network may be divided or shared across various information types. The network provides each node with essentially direct access to information (e.g., circuit switched data, packet switched data, etc.) originating from any port associated with any node served by the network. Different packet structures are provided for communicating circuit switched data, packet switched data, maintenance and control information, and the like.; In one method, each node transmits one or more packets, each having an "empty" payload, which is received by other nodes that determine the source of the received packet and the packet's status. The receiving node inserts information (if any) it has for the transmitting node into the payload, after which it allows the packet to pass to the next node on the network. The packet traverses the complete network and returns with a "full" payload to the transmitting node, wherein the packet information is captured by the transmitting node. In this fashion, information of any type originating from any port served by any node may be transferred to any other port of the same or different node in the system. In another method, each node uses the network to transmit one or more packets, each of which has a "full" payload that contains information originating from the transmitting node.; Each such packet is received by the other nodes, each of which determines the origin of the packet and whether any of the information contained therein is needed by the receiving node. If so, such information is captured from the payload before the packet passes to the next adjacent node. This process is repeated until each node on the network has transmitted one or more packets with a "full" payload and each such packet has traversed the complete network, thereby allowing each node access to the information originated by each other node. These two methods may be combined as well.